

PRELIMINARY LISTS OF NEW ENGLAND PLANTS,—
XXIII.¹ CLADONIACEAE.

LINCOLN WARE RIDDLE.

[The sign + indicates that an herbarium specimen has been seen;
the sign — that a reliable printed record has been found.]

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.
Baeomyces byssoides (L.) Schaer.	+	+	+	+	—	
“ ericetorum (L.) Wainio	+	+	+	—		
“ placophyllus Ach.		+				
“ roseus Pers.	+	+	+	+	+	+
Cladonia alpestris (L.) Rabenh.	+	+	+	+	—	+
“ amaurocrea (Flke.) Schaer.	+	+	+			
“ bacillaris Nyl.	+	+	+	+		+
“ caespiticia (Pers.) Flke.	+	+		+	+	
“ cariosa (Ach.) Spreng.	+	+	+	+	—	+
“ “ var. corticata Wainio	—			+		
“ carneola Fr.		+				
“ cenotea (Ach.) Schaer.	+	+	+	+	—	
“ coccifera (L.) Willd.	+	+	+	+	—	+
“ “ var. ochrocarpia Flke.		+		+		
“ “ var. pleurota (Flke.) Schaer.		+		—		
“ cornuta (L.) Schaer.		+	+	—	—	
“ crispata (Ach.) Flot.	+	+	+	+	—	+
“ cristatella Tuck.	+	+	+	+	+	+
“ “ var. ochrocarpia Tuck.		+		+	+	
“ “ var. paludicola Tuck.				+		
“ “ var. ramosa Tuck.		+		+		
“ “ var. vestita Tuck.	+	+	+	+		
“ decorticata (Flke.) Spreng.	—	+				
“ deformis Hoffm.	+	+	+	+		
“ degenerans (Flke.) Spreng.		+	+	—	+	
“ delicata (Ehrh.) Flke.	+	+	+	+		
“ digitata Schaer.	+	+		+		
“ fimbriata (L.) Fr.	+	+	+	+	+	+
“ “ var. coniocrea (Flke.) Wain.	+	+	+	+	+	+
“ “ var. nemoxyne (Ach.) Coem.		+				
“ “ var. radiata (Schreb.) Coem.		+		+		
“ “ var. subulata (L.) Wainio		+				

¹ Printed in RHODORA as supplementary matter.

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.
<i>Cladonia foliacea</i> var. <i>alcicornis</i> (Lightf.) Schaer .	—	+		+	—	—
“ <i>furcata</i> (Huds.) Schrad.	+	+	+	+	+	+
“ “ var. <i>palamaea</i> (Ach.) Nyl.		+		+	+	+
“ “ var. <i>pinnata</i> (Flke.) Wainio	+	+	+	+		+
“ “ var. <i>scabriuscula</i> (Del.) Coem.	+	+		+	+	
“ <i>glauca</i> Flke.				+	—	
“ <i>gracilis</i> (L.) Willd.	+	+	+	—	—	—
“ “ var. <i>chordalis</i> (Flke.) Schaer.		+	+		—	
“ “ var. <i>dilacerata</i> Flke.	+	+	+			
“ “ var. <i>elongata</i> (Jacq.) Flke.	+	+		+		
“ <i>macilenta</i> Hoffm.	+	+	+	+	+	
“ <i>mitrula</i> Tuck.				+		+
“ <i>papillaria</i> (Ehrh.) Hoffm.	+	+	+	+	+	+
“ <i>pityrea</i> (Flke.) Fr.	+	+	+	+		
“ <i>pyxidata</i> (L.) Fr.	+	+	+	+	+	+
“ “ var. <i>chlorophaea</i> (Spreng.) Flke.	+	+				
“ <i>rangiferina</i> (L.) Web.	+	+	+	+	+	+
“ <i>rangiformis</i> Hoffm.		+				
“ <i>reticulata</i> (Russell) Wainio	+	+		+	+	+
“ <i>squamosa</i> (Scop.) Hoffm.	+	+	+	+		
“ “ var. <i>multibrachiata</i> (Flke.) Wainio.		+		—		
“ “ var. <i>muricella</i> (Del.) Wainio	+	+		—		
“ “ var. <i>phyllocoma</i> Rabenh.	+	+				
“ <i>subcariosa</i> Nyl.	—	+		+		—
“ <i>sylvatica</i> Hoffm.	+	+	+	+	+	+
“ <i>turgida</i> (Ehrh.) Hoffm.	+	+	+	+		
“ <i>uncialis</i> (L.) Web.	+	+	+	+	+	+
“ <i>verticillata</i> Hoffm.	—	+	+	+	+	+
<i>Pilophorus Cereolus</i> var. <i>Fibula</i> Tuck.	—	+				
<i>Stereocaulon alpinum</i> Laur.	+	+				
“ <i>condensatum</i> Hoffm.	—			+		+
“ <i>coralloides</i> Fr.	+	+	+	—		
“ <i>denudatum</i> Flke.		+	+	—		
“ <i>nanodes</i> Tuck.		+				
“ <i>paschale</i> (L.) Ach.	+	+	+	+		+
“ <i>pileatum</i> Ach.	+	+	+	+		
“ <i>tomentosum</i> Fr.	+	+	+	+		+
<i>Thamnolia vermicularis</i> (Sw.) Schaer.	+	+	+			

NOTES UPON THE ABOVE LIST

The names adopted in the genus *Cladonia* are based on Wainio's "Monographia Cladoniarum Universalis." In cases where the nomenclature of Tuckerman's "Synopsis of North American Lichens" differs from that of Wainio, the Tuckerman name is given in parenthesis, in these notes, following the Wainio name. On one point only does the usage here followed depart from that of Wainio. In his Monograph, he has distributed all the forms of polymorphic species under varietal names, making, therefore, a compound conception of the species. This is a practice not followed in other groups of plants and apparently unnecessary. In this list the specific name is understood to stand for the typical form of the species, and is equivalent to the first variety given under each species by Wainio. This is liable to lead to confusion only in the following species: *Cladonia fimbriata*, *furcata*, and *gracilis*. For the synonymy, reference may be made to the notes on these species given below.

Baeomyces ericetorum (L.) Wainio. (*B. aeruginosus* (Scop.) DC.) There is considerable doubt as to the true relationships of this species, but it has seemed best in this list to retain it in its traditional position, using, however, the earlier name. (Compare Wainio: Notulae de synonymia lichenum, in Medd. Soc. pro Fauna et Flora fennica, vol. 14, 1886.)

Cladonia alpestris (L.) Rabenh. (*Cl. rangiferina* var. *alpestris* (L.) Schaer.)

Cladonia bacillaris Nyl. (*Cl. macilenta* (Ehrh.) Hoffm. in part.)

Cladonia cariosa var. *corticata* Wainio. (*Cl. symphycarpa*, in part, of American authors, not Fries.) Compare Fink in Bryologist 9:23 (1906).

Cladonia coccifera (L.) Willd. (*Cl. cornucopioides* (L.) Fr.)

Cladonia crispata (Ach.) Flot. (*Cl. furcata* var. *crispata* Flke.)

Cladonia fimbriata (L.) Fr. Under the specific name is included material called "var. *simplex*" by Wainio, "var. *tubaeformis* Fr." by Tuckerman, in part. Tuckerman's "var. *tubaeformis*" also included what is here called "var. *coniocrea* (Flke.) Wain."; and his "var. *radiata* Fr." included the remaining three varieties of this list.

Cladonia foliacea var. *alcicornis* (Lightf.) Schaer. (*Cl. alcicornis* (Lightf.) Flke.) The Maine record is based on Rand & Redfield's "Flora of Mt. Desert Island." Through the courtesy of Mr. E. L.

Rand, I have had the opportunity of examining the lichens preserved in his herbarium. The specimen upon which this record was apparently based is very doubtful, and much better referable to *Cl. cariosa* var. *corticata* Wainio. I have left the record in the list, however, as Mr. Rand states that some of the records of lichens were based on specimens in other herbaria than his own.

Cladonia furcata (Huds.) Schrad. Under the specific name is included the "var. *racemosa* (Hoffm.) Flke." of Wainio's Monograph, and also of Tuckerman, in part. The "var. *racemosa*" of the latter also included material placed by Wainio under "var. *pinnata* (Flke.)." "Var. *palamaea* (Ach.) Nyl." is equivalent to "var. *subulata* Flke." but "var. *scabriuscula* (Del.) Coem." was not recognized by Tuckerman, and appears not to be represented in his herbarium.

Cladonia glauca Flke. (*Cl. cenotea* var. *furcellata* Fr.)

Cladonia gracilis (L.) Willd. The specific name is understood to stand for the "var. *dilatata*" of Wainio, and the "var. *hybrida*" of Tuckerman, in part, the latter also including material here referred to "var. *dilacerata* Flk. "Var. *chordalis* (Flke.) Schaer." is the "var. *elongata* f. *chordalis* Fr." of Tuckerman, and "var. *elongata* (Jacq.) Flke." is the "var. *elongata* f. *macroceras* Fr."

Cladonia pityrea (Flke.) Fr. (*Cl. fimbriata* var. *adpersa* Tuck. in part.)

Cladonia rangiformis Hoffm. (*Cl. furcata* var. *pungens* Fr.)

Cladonia reticulata (Russell) Wainio. (*Cl. Boryi* Tuck.)

Cladonia squamosa (Scop.) Hoffm. The vars. *multibrachiata* and *phyllocoma* of this list have been little studied by American workers, and the records are, therefore, based on material determined by L. Scriba of Frankfort, Germany. "Var. *muricella* (Del.) Wainio" is equivalent to "f. *attenuata* Fr."

Cladonia subcariosa Nyl. (*Cl. gracilis* var. *verticillata* f. *symphy- carpia* Tuck., *Cl. symphy- carpa*, in part, of American authors, not Fries.) See note below under *Cl. alpicola* var. *Karelica* Wainio.

Cladonia sylvatica (L.) Hoffm. (*Cl. rangiferina* var. *sylvatica* (L.) Schaer.)

Cladonia verticillata Hoffm. (*Cl. gracilis* var. *verticillata* Fr.)

The following species recorded from New England have been omitted from the list for the reasons stated below.

Cladonia bellidiflora (Ach.) Schaer. Recorded as collected in Wells, Maine, by J. Blake in Harvey's "Contributions to the Lichens of

Maine" (Bull. Torrey Bot. Club **21**:389). Through the courtesy of Prof. M. A. Chrysler, I have had an opportunity of examining the specimens upon which this record was based. The specimens are very doubtfully *Cl. bellidiflora*, having a much stronger resemblance to squamulose forms of *Cl. cristatella* Tuck. Similar specimens, collected in the White Mts. by Tuckerman are in the latter's herbarium, marked doubtful.

Cladonia didyma (Flke.) Wainio. (*Cl. pulchella* Schwein.) Recorded in Rand & Redfield's "Flora of Mt. Desert Island, Maine"; but no specimen is to be found in Mr. Rand's herbarium, and as the species is distinctly southern in its distribution and is not otherwise known from New England, the record was probably based on an erroneous determination.

Cladonia flabelliformis (Flke.) Wainio. Recorded by Willey in his "List of the Lichens of New Bedford, Mass.," but not generally recognized by American students as distinct from *Cl. macilenta*.

Cladonia lepidota Fr. Recorded by Willey (*l. c.*). This species is considered by Wainio to be synonymous with *Cl. cristatella* var. *ochrocarpia* Tuck. and the specimens are, therefore, listed under that name.

Cladonia leptophylla Nyl. Recorded by Willey (*l. c.*), but included under *Cl. mitrula* Tuck. by American students.

Cladonia pyxidata var. *pocillum* Ach. Recorded by Willey (*l. c.*). This is an arctic variety not otherwise known from New England, and this record must, therefore, be considered doubtful.

Cladonia alpicola var. *Karelica* Wainio. This is stated by Wainio to be synonymous with the true *Cl. symphycarpa* of Fries. It is recorded from New England by G. K. Merrill in Bryologist **12**:46 (1909), but no specimens examined appear to belong here, and it is, therefore, omitted until better known. Mr. Merrill has also, within the last year, segregated two new species, *Cladonia multiformis* (in Bryol. **12**:1) and *Cl. polycarpia* (in Bryol. **12**:46). It has seemed best, however, not to include these in the list until their status can be determined by further study.